CONTENTS

SEWALL WRIGHT'S CONTRIBUTION TO PHYSIOLOGICAL GENETICS AND	
TO INBREEDING THEORY AND PRACTICE, Elizabeth S. Russell	1-18
GENETICS OF ALCOHOLISM, Eric J. Devor and C. Robert Cloniger	19-36
MECHANISMS THAT CONTRIBUTE TO THE STABLE SEGREGATION OF	
PLASMIDS, Kurt Nordström and Stuart J. Austin	37-69
MAIZE TRANSPOSABLE ELEMENTS, A. Gierl, H. Saedler,	
and P. A. Peterson	71–85
RECOMBINATIONAL CONTROLS OF RDNA REDUNDANCY IN	
DROSOPHILA, R. Scott Hawley and Craig R. Marcus	87–120
The Molecular Genetics of Self-Incompatibility in ${\it Brassica},$	
J. B. Nasrallah and M. E. Nasrallah	121–39
ADENOVIRUS E1A PROTEIN: PARADIGM VIRAL TRANSACTIVATOR,	
Jane Flint and Thomas Shenk	141–61
GENETICS OF PROTEOLYSIS IN ESCHERICHIA COLI, Susan Gottesman	163–98
HOMOLOGOUS RECOMBINATION IN MAMMALIAN CELLS, Roni J.	
	199–225
MULTIPARTITE GENETIC CONTROL ELEMENTS: COMMUNICATION BY	
DNA LOOP, Sankar Adhya	227–50
THE POPULATION GENETICS OF DROSOPHILA TRANSPOSABLE	251 05
ELEMENTS, Brian Charlesworth and Charles H. Langley	251–87
GENETIC ANALYSIS OF PROTEIN STABILITY AND FUNCTION,	200 210
	289–310
PROKARYOTIC SIGNAL TRANSDUCTION MEDIATED BY SENSOR AND	
REGULATOR PROTEIN PAIRS, Lisa M. Albright, Eva Huala, and Frederick M. Ausubel	311–36
EVOLUTIONARY QUANTITATIVE GENETICS: HOW LITTLE DO WE	311-30
Know?, N. H. Barton and Michael Turelli	337-70
THE MOLECULAR GENETICS OF 21-HYDROXYLASE DEFICIENCY,	
Walter Miller and Yves Morel	371-93
HABITUATION: HERITABLE VARIATION IN THE REQUIREMENT OF	
CULTURED PLANT CELLS FOR HORMONES, Frederick Meins, Jr.	395–408

x CONTENTS (Continued)

MOLECULAR STRUCTURE OF HUMAN CHROMOSOME 21. G. D. Stewart, M. L. Van Keuren, J. Galt, S. Kurachi, M. J. Buraczynska, and D. M. Kurnit 409-23 POPULATION GENETICS AND EVOLUTION OF SPECIES RELATED TO DROSOPHILA MELANOGASTER, Rama S. Singh 425-53 GENETIC CONTROL OF BACTERIAL VIRULENCE, Victor J. DiRita and John J. Mekalanos 455-82 RHIZOBIUM GENETICS, Sharon Long 483-506 MOLECULAR GENETICS OF NEMATODE MUSCLE, Philip Anderson 507-25 ALTERNATIVE SPLICING IN THE CONTROL OF GENE EXPRESSION. Christopher W. J. Smith, James G. Patton, and Bernardo Nadal-Ginard 527-77 STRUCTURE AND FUNCTION OF TELOMERES, Virginia A. Zakian 579-604 MECHANISM AND DEVELOPMENTAL PROGRAM OF IMMUNOGLOBULIN GENE REARRANGEMENT IN MAMMALS, T. Keith Blackwell and Frederick W. Alt 605-36 THE ISOCHORE ORGANIZATION OF THE HUMAN GENOME, Giorgio Bernardi 637-61 **INDEXES** Subject Index 663-73 Cumulative Index of Contributing Authors, volumes 19-23 674-75 Cumulative Index of Chapter Titles, Volumes 19-23 676-79

SOME RELATED ARTICLES IN OTHER ANNUAL REVIEWS

From the Annual Review of Biochemistry, Volume 58, 1989

DNA Topoisomerase Poisons as Antitumor Drugs, L. F. Liu

DNA Conformation and Protein Binding, A. A. Travers

Animal Virus DNA Replication, M. D. Challberg and T. J. Kelly

Molecular Mechanisms of Transcriptional Regulation in Yeast, K. Struhl

Eukaryotic Transcriptional Regulatory Proteins, P. F. Johnson and S. L. McKnight

Mutational Effects on Protein Stability, T. Alber

Gene Conversion and the Generation of Antibody Diversity, L. J. Wysocki and M. L. Gefter

From the Annual Review of Biophysics and Biophysical Chemistry, Volume 18, 1989

Toward a Unified Model of Chromatin Folding, J. Widom Physical Studies of Protein-DNA Complexes by Footprinting, Thomas D. Tullius

From the Annual Review of Cell Biology, Volume 5, 1989

The Chloroplast Chromosomes in Land Plants, M. Sugiura

Initiation of Eukaryotic DNA Replication In Vitro, B. Stillman

Communication Between Mitochondria and the Nucleus in the Regulation of Cytochrome Genes in the Yeast Saccharomyces cerevisiae, S. L. Forsburg

and L. Guarente
Origin and Evolution of Mitochondrial DNA, M. W. Gray

RNA Editing. L. Simpson

From the Annual Review of Entomology, Volume 34, 1989

Expression of Foreign Genes in Insects Using Baculovirus Vectors, Susumu Maeda

From the Annual Review of Immunology, Volume 7, 1989

V-Region Connectivity in T-Cell Repertoires, P. Pereiras, A. Bandeira, A. Coutinho, M.-A. Marcos, M. Toribio, and C. Martinez-A.

Immunogenetics of Human Cell Surface Differentiation, W. J. Rettig and L. J. Old

From the Annual Review of Medicine, Volume 40, 1989

Genetic Changes in the Pathogenesis of Lung Cancer, M. J. Birrer and J. D. Minna

(continued) xi

From the Annual Review of Microbiology, Volume 43, 1989

Scrapie Prions, Stanley B. Prusiner

xii

The Role of the DNA/Membrane Complex in Prokaryotic DNA Replication, William Firshein

DNA Packaging in dsDNA Bacteriophages, Lindsay W. Black

Transcription and Reverse Transcription of Retrotransposons, Jef D. Boeke and Victor G. Corces

The Genomes of the Human Herpesviruses: Contents, Relationships, and Evolution, Duncan J. McGeoch

Staphylococcal Plasmids and Their Replication, Richard P. Novick

Genetics and Regulation of Bacterial Lipid Metabolism, *Thomas Vanden Boom and John E. Cronan, Jr.*

Genetic Analysis of Exracellular Toxins of Staphylococcus aureus, John J. Iandolo

